Site-Specific EBS Working Draft FSP Review Meeting
St. Louis Army Ammunition Plant

Date: August 1, 2001
Place: URS Group Offices
10975 El Monte, Suite 100
Overland Park, KS 66211

Time: 0900 to 1500 hrs

Purpose of Meeting

Review a working draft of the site-specific EBS Field Sampling Plan (FSP)

Introduction/Comprehensive EBS Report Status

All attendees were introduced, including several members of the URS team who did not stay for the entire meeting. Mr. Skach then presented the agenda for the meeting and handed out copies of the PowerPoint (PP) slides (**Attachment 1**) that were presented during the meeting. He then briefly reviewed the previous work done by Tetra Tech EM, Inc. to produce the comprehensive EBS Report. Ms. Olinger said that Tetra Tech's funding expired and Mr. Wade prepared the responses to comments on the report with replacement pages. Copies of these documents were distributed at the meeting.

Review of Building 3 Remediation Activities

Mr. Wallace presented a review of activities that Arrowhead recently performed at SLAAP. Some of the relevant discussions/conclusions were:

- First Floor – Approximately 6400 ft^2 of 8 in thick concrete flooring (6 in floor + 2 in cap) will need to be removed.

- Second Floor – There is contamination beneath the renovated office space that will have to be removed.

- Basement – Chip chute area contains contamination that will have to be removed. Of particular concern is an oil product found just outside the building between the native soils and the gravel beneath the concrete. TPH is a contaminant of concern in soils and should be addressed during the site-specific EBS investigation. PCB's were found in a line extending from the tunnel to Building 6. Arrowhead did not investigate the tunnel itself, but results from the basement of Building 3 indicate that the tunnel and exterior stairs leading from it should be included in the site-specific EBS investigation.

- Schedule – To expedite the commencement of field activities for both the remediation activities and the site-specific EBS, a 14-day review of workplans was requested of all parties involved.

Introduction of Workplans

Mr. Skach presented an overview of the four documents of the workplans that URS is preparing for the site-specific EBS investigation. The meeting was convened for the purpose of discussing just the Field Sampling Plan (FSP), so Mr. Skach gave a detailed description of the sections included in the FSP (see PP slides).

Sampling Program Rational

Mr. Kroutch and Mr. Phoenix presented a building-by-building review of each proposed sampling area. Mr. Kroutch reviewed the existing process knowledge and known environmental concerns for each area, followed by Mr. Phoenix's description of the sample locations for each area, (see PP slides). Some of the highlights for each area are:

- Sewer System – It is believed that most site utilities are located at a depth of approximately 10 ft bgs, but Mr. Baer indicated that some of the sewers at SLOP were found to be at least 20 ft bgs. Concerns were also raised about the bedding material of buried utility lines being a potential conduit for contaminant migration.

- Building 1 – Some contingency borings on Figure 3-1 are redundant and should be removed.

- Building 2 – No major issues were raised with respect to the proposed sampling program.

- Building 3 – Figures still need to be generated for sampling activities in Building 3.

- Building 4 – Concerns were raised about the lack of contingency samples at all compressor pits. It was decided that if contamination is found beneath the pits being investigated, excavation volumes would be estimated by assuming that the contamination found is present beneath all five compressor pits. PAH detection limits should also be low enough to allow for proper evaluation of exposure to children waiting at nearby bus stops and trespassers on the site.

- Building 5 – A clarification was requested of the sampling activities to be conducted at the oil storage shed location on the SW corner of the building.

- Building 6 – Based on Mr. Wallace's report, samples will collected in the tunnel leading to Building 3.

- Building 7 – A clarification was made that hexavalent chromium, not total chromium, would be analyzed in the samples.

- Building 8 – It was unclear whether or not samples should be analyzed for PCBs. There

was also some discussion of the methods used to load the tanks. No conclusions were reached about the delivery methods, but due to the amount oil consumed by the facility, it was thought that rail was a likely means of supplying oil to the Building 8 tanks.

- Building 9 – Concerns were raised about whether the smokeless powder handled during periods of SLOP production contained DNT. It was concluded that if more research of operations could not determine that smokeless powder without DNT had been used, samples for explosives would be taken. There was also some concern about whether the location plotted on the existing maps is accurate.

- Building 10 – Extent of excavation during UST removal is visually evident at the surface. Soil borings must still be taken outside the excavation and beneath the concrete pad upon which the USTs rested.

- Building 11 – No areas of environmental concern.

- Background locations – No background sampling locations have yet been determined for the area. Mr. Harris indicated that MDOH would have the final say on what locations would be acceptable for determining background levels of contamination and that MDOH is not likely to accept any locations on the SLAAP property. It was concluded that MDOH would be consulted for guidance on selecting a background sampling location.

Risk Assessment Sampling

Dr. Garrison presented a summary of the risk assessment sampling activities to be conducted, (see PP slides). Following the presentation several issues were discussed:

- Concerns were raised about the absence of samples in the undeveloped area north of Building 1, the railroads on the site, and the open roadways around site buildings. It was decided that these areas would be added to the risk assessment sampling activities.

- Since railroads are to be analyzed for the risk assessment, Mr. Garrison requested that two additional background samples from offsite railroads be collected for comparison purposes.

- In areas where smokeless powder was handled, it was decided that samples would also be analyzed for explosives to check for DNT contamination if no evidence is found to document that DNT's were not used on site.

- It was suggested that Buildings 5 and 6 be combined, but since there is no guarantee that both will be used together or demolished together it was decided that they could not be

combined.

- It was suggested that since PCBs had been used in one portion of Building 3 while fuel oil had been used in another, Building 3 should be divided into two areas of concern. Since the risk assessment will address areas of high contamination separately, it was decided that Building 3 will be treated as one area.

- Background sample locations for metals and PAHs were discussed again. Old schoolyards and churches were proposed as possible background locations. Cemeteries were excluded as possible locations due to the historical use of arsenic in embalming fluids.

- Since PAHs were the only SVOCs detected during the comprehensive EBS investigation, it was proposed that EPA method 8310 be used to analyze for them. Method 8310 has lower detection limits than method 8270, but excludes from its analyte list many of the SVOCs included in method 8270.

- Ultimately, it was decided that Randy Maley of MDOH would be consulted before proceeding with the proposed risk assessment sampling activities.

- The risk presented by asbestos pipe insulation in Building 3 was discussed. It was explained that the insulation would be sampled prior to demolition for separate disposal. Sediments inside the drainpipes were also a concern since they could contain PCB's in excess of 50 ppm.

Project Schedule

Mr. Skach presented the proposed project schedule (see PP slide). The review period is critical to meet the schedule so that the field work can be completed before the Building 3 remediation begins in early November.

PERSON DOCUMENTING MEETING

Robert F. Skach, P.E.
URS Group, Inc.
SLAAP Project Manager

Signature

Date

ATTENDEES

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